34 Lecture - PHY301

Important Mcqs

What is the primary function of a transformer?

- A. To convert DC to AC
- B. To amplify electrical signals
- C. To transfer electrical energy through electromagnetic induction
- D. To protect electrical devices from power surges

Answer: C

What is the turns ratio of a transformer?

- A. The ratio of power output to power input
- B. The ratio of the number of turns in the secondary winding to the number of turns in the primary winding
- C. The ratio of voltage to current
- D. The ratio of resistance to capacitance

Answer: B

What is the efficiency of a transformer?

- A. The ratio of the number of turns in the primary winding to the number of turns in the secondary winding
- B. The ratio of the power output to the power input
- C. The ratio of the voltage output to the voltage input
- D. The ratio of the current output to the current input

Answer: B

How are transformers used in power systems?

- A. To convert DC to AC
- B. To amplify electrical signals

- C. To transfer electrical energy at high voltages and low currents
- D. To regulate the flow of current through a circuit

Answer: C

What is the maximum power rating of a transformer?

- A. The maximum amount of power that can be input into a transformer
- B. The maximum amount of power that can be output from a transformer
- C. The maximum amount of power that a transformer can handle before becoming damaged
- D. The maximum amount of power that a transformer can transfer through electromagnetic induction

Answer: C

What is the frequency response of a transformer?

- A. The ability of a transformer to transmit signals of different frequencies
- B. The maximum frequency that a transformer can handle
- C. The minimum frequency that a transformer can handle
- D. The frequency at which a transformer resonates

Answer: A

What are step-up transformers used for?

- A. To increase the voltage level of an electrical signal
- B. To decrease the voltage level of an electrical signal
- C. To amplify electrical signals
- D. To regulate the flow of current through a circuit

Answer: A

What are isolation transformers used for?

- A. To match the impedance of audio devices
- B. To protect electrical devices from power surges
- C. To transfer electrical energy between circuits

D. To provide electrical isolation between two circuits

Answer: D

What is the purpose of a transformer core?

- A. To conduct electricity
- B. To provide mechanical support to the transformer
- C. To focus the magnetic field and increase the efficiency of the transformer
- D. To regulate the flow of current through a circuit

Answer: C

What is a tap changer in a transformer?

- A. A device used to change the frequency of the electrical signal
- B. A device used to adjust the voltage level of the electrical signal
- C. A device used to switch the transformer on and off
- D. A device used to match the impedance of audio devices

Answer: B